December 27, 2013

Summary of Peer Review Responses

Question 1: Does the Summary Report dated May 24, 2013 clearly and comprehensively describe the sources, environmental levels, and potential exposures for PCBs in school buildings?

Reviewers #1 and #3 believe that the report is written relatively clearly but needs better organization and formating. Reviewer #2 does not believe that the report is clear and asserts that it attempts to describe the sources, environmental levels, and potential exposures for PCBs in school buildings by referencing an EPA ORD report.

Question 2: Please comment on the appropriateness of the remedies selected. Do they provide adequate reductions of the exposure to PCBs? If not, do you have suggestions for additional reductions that could be achieved, given the available data?

Reviewers #1 and #2 consider the remedies appropriate but recommend that additional measures be considered (e.g. decontamination/treatment of the substrate or a hybrid approach between source modification and contact encapsulation). Reviewer #3 responds that more information is needed to answer the question.

Question 3: For each remedy: Does the remedy provide sufficient information to reasonably demonstrate the effectiveness of the proposed remedy? If not, what additional information is needed?

All three reviewers have concerns with one or more of the remedial alternatives. Reviewer #2 only responds for the ballast re-occupancy protocol and the BMPs.

Question 4: For each remedy: Are the methodologies used consistent with the state-of-science? If not, please provide specific references and suggestions for revision.

Reviewer #2 believes that the methodologies are consistent with the state-of-science. Reviewers #1 and #3 cite deficiencies in the City's approach in determining cause and effect relationships.

Question 5: Do you have specific recommendations for clarification, explanation, or analysis of data, results, conclusions or other information included in this report?

Each reviewer has different recommendations. Reviewer #1 recommends the inclusion of prioritization components to focus the remedy within each school. Reviewer #2 would like to see concise data summary tables in the report. Reviewer #3 recommends that the report provide information on the amount of interior PCB caulk in each school, and also clarify the PCB exposure benchmarks used to evaluate the success of the remedies.

Question 6a: Are there alternatives to the visual inspection protocol for detecting ballasts that have leaked?

Each reviewer provides a different alternative (i.e., open the fixture, detect by odor, perform air testing).

Question 6b: EPA has suggested revising the re-occupancy protocol to include post cleanup air sampling in addition to the current practice of surface wipe sampling for PCBs. Is wipe sampling alone adequate to minimize exposure of students and staff to PCBs?

None of the reviewers believe wipe sampling alone is appropriate. Reviewers #2 and #3 recommend air sampling while Reviewer #1 believes that rooms where leaks have occurred should be prioritized for ventilation assessment.

Question 6c: If sampling for PCBs in air, is it possible to achieve a low enough detection limit (at least 50 ng/m^3) using a passive sampler?

None of the reviewers could provide a definitive answer to this question.

Question 6d: The approaches evaluated thus far include patch and repair, removal and encapsulation. Are there other approaches that may be evaluated?

Reviewer #1 recommends evaluation of secondary barriers or substrate treatment. Reviewer #2 believes lowering the amount of PCBs in caulk through chemical degradation and covering the caulk with an impermeable sealant should be evaluated. Reviewer #3 recommends a barrier such as polyethylene tape as part of an encapsulation remedy, while gypsum board and aluminum strips could be also used in schools as barriers.

Question 6e: Should the caulk management plan address both deteriorated and intact caulk, or should it focus on only one condition of caulk?

Reviewer #1 believes that the City should prioritize addressing the intact caulk based on concentration and accessibility. Reviewer #2 suggests including both deteriorated and intact caulk with an emphasis on deteriorated caulk. Reviewer #3 suggests focusing on all forms of caulk that contain PCBs at levels exceeding 10,000 parts per million.

Question 6f: Are there procedures, in addition to those specified in the collective bargaining agreement, which would minimize the impact of PCB releases?

All three reviewers discuss the assessment/optimization of ventilation.

Question 6g: Would proactively addressing the presence of PCBs city-wide, regardless of future construction, significantly reduce exposures? If so, what factors are recommended for consideration in identifying buildings that should be prioritized for caulk management activities?

All three reviewers believe that proactively addressing PCBs would significantly reduce exposure. Reviewer #1 recommends a stabilization approach where potential exposures are controlled through assessment or interim measures (i.e., best management practices) until a time that PCB caulk removals can take place. Reviewer #2 discusses prioritization based on the type of ventilation, estimated number of PCB-containing ballasts and frequency of ballast burnout, estimated linear feet of PCB-containing caulk (interior and exterior), PCB concentration in the caulk, and condition of the caulk. Reviewer #3 recommends considering the type of construction, amount of interior caulk, type of ventilation system, and information on energy intensity for heating and cooling.

Question 6h: Would air sampling be an effective means of confirming a prioritization scheme?

All three reviewers believe air sampling would be an effective means of confirming a prioritization scheme.

Question 6i: Would proactively evaluating the presence of PCBs in the soil at all schools with exterior PCB caulk, regardless of future construction, significantly reduce exposures?

The reviewers do not believe that proactively evaluating PCBs in the soil will significantly reduce exposure.

Question 6j: Are there any data gaps or limitations not identified by NYC?

Each reviewer provides a different response to the question. Reviewer #1 recommends focusing on a stabilization approach until a final remedy can be implemented at each school. Reviewer #2 proposes an evaluation of the hybrid approach of source modification plus contact encapsulation. Reviewer #3 recommends performing an analysis of the value of information gained from any additional studies, and discussing why the Preferred Citywide Remedy does not include air sampling.